

Notice of Allowability

Application No.

09/733,980

Examiner

Nikita Wells

Applicant(s)

MURAKI ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to "Preliminary Amendment" received 01 November 2004.
2. ☒ The allowed claim(s) is/are 1-4,8-12,14-18,20,22-25 and 28-34.
3. ☒ The drawings filed on 12 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Nikita Wells
Primary Examiner
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DETAILED ACTION

Allowable Subject Matter

1. Claims 1-4, 8-12, 14-18, 20, 22-25, and 28-34, are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claims 1-4, 8-12, 14-18, 20, 22-25, and 28-32 were allowed in the fourth "Office Action" mailed out July 28, 2004. In the most recent Amendment, the Applicant added two new independent claims 33 and 34 according to the "Preliminary Amendment" received November 1, 2004. These two new claims are very similar to claims 31 and 32 and incorporate the allowable features of these claims which is the blanker array having a plurality of apertures two-dimensionally arrayed on a same plane located almost perpendicularly to a pass through direction of the plurality of charged-particle beams and a plurality of pairs of electrodes provided on both sides of each aperture.

With respect to the newly added independent claims 33 and 34, the reference of Abe et al. (5,863,682)(which was used to initially reject under 35 U.S.C. 102(b) in previous office actions mailed out February 24, 2004 and December 31, 2002), or any other prior art, fails to disclose an apparatus and device manufacturing method for irradiating a plurality of charged particle beams to a sample and forming a pattern on the sample, comprising: a memory for storing data for performing proximity effect correction; and a blanker array having a plurality of apertures two-dimensionally arrayed on a same plane located almost perpendicularly to a pass through direction of the plurality of charged-particle beams and a plurality of pairs of electrodes provided on both sides of each aperture, wherein the plurality of pairs of electrodes individually deflect the

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plurality of charged-particle beams, and individually control irradiating of the plurality of charged-particle beams to the sample.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. K. Takahashi (6,610,989 B1), K. Kamijo (6,501,083 B1), and Oae et al. (6,118,129 B1) disclose a charged particle beam exposure apparatus and method of exposing an exposure pattern on an object taking into account proximity effect corrections.
4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.
6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Nikita Wells". The signature is fluid and cursive, with the first name "Nikita" and the last name "Wells" clearly distinguishable.

Nikita Wells, Primary Examiner
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December 8, 2004